



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,170	01/02/2007	Marcello Puggioni	154546/0341-073	5190

86661 7590 05/12/2010
Potomac Patent Group PLLC
P.O. Box 270
Fredericksburg, VA 22404

EXAMINER

WHITE, DWAYNE J

ART UNIT	PAPER NUMBER
----------	--------------

3745

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

05/12/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

tammy@ppglaw.com
gpo.mail@ge.com

Office Action Summary	Application No. 10/572,170	Applicant(s) PUGGIONI ET AL.	
	Examiner DWAYNE J. WHITE	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 05 February have been fully considered. Claim 1-13 are pending. Applicant amendment to claim 1 has been deemed sufficient to overcome the rejections under 35 USC 102(b) in view of Drumm and Korenblit. These rejections have been withdrawn. With respect to the rejection of claim 1-6 in view Lorenzen, Applicant has argued that since Lorenzen discloses a heating device and therefore cannot maintain a temperature of a seal low in case of high temperatures of the wall and/or compressed gas as recited in claim 1. The Examiner respectfully disagrees. The Examiner first points out that the heat exchanger claimed by Applicant is "configured" to perform the cited function. As there is no recited structure in the claim that is not also disclosed in Lorenzen, the Examiner holds the position that the heating device of Lorenzen is inherently capable of providing a cooling fluid since the structure claim by Applicant is substantially the same. In other words, as presently claim the only difference between Applicant's claimed structure and the device disclosed by Lorenzen is the function the structure is used for and this function does not require any additional structure not disclosed by Lorenzen. The Examiner has maintained the rejection under 35 USC 102(b). New claims 7-13 have been treated below.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 3745

Claim 12 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, Claim 12 recites the heat exchanger being configured to reduce a temperature of the gas seal from more than 200 degrees Celsius to around 100 degrees Celsius. This range is not explicitly supported by the original specification as filed. The Examiner points out that Applicant has one provide an example high temperature in one part of the specification and then recites another "acceptable temperature" later on page 5. This does not support a temperature change range as the upper limit and the lower limit are never referred to as a function of the heat exchanger device.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Lorenzen (5,718,560). Lorenzen discloses a heat exchange device for a gas seal 15/16 comprising: a fluid heat exchanger 12 positioned between the gas seal and the housing wall 11 capable of keeping the temperature of the seal low. The circular exchanger envelops the seal and extends between the seal and a supporting flange of the seal. The heat exchanger comprises an inlet 18b and at

Art Unit: 3745

least one outlet 18c connected to the coiled path that encompasses the gas seal and is capable of flowing cooling liquid (water) through the exchanger device. Lorenzen further discloses the seal comprising a gas inlet 40 passing through the center of the exchanger. Lorenzen further discloses an impeller attached to a shaft (both the impeller and the shaft are basically indicated as item number 13) that rotates inside the fluid heat exchanger and a centrifugal compressor including the compressor. With respect to the heat exchanger being configured to reduce a temperature of the gas seal, Examiner holds the position that the heating device of Lorenzen is inherently capable of providing a cooling fluid since the structure claim by Applicant is substantially the same. In other words, as presently claim the only difference between Applicant's claimed structure and the device disclosed by Lorenzen is the function the structure is used for and this function does not require any additional structure not disclosed by Lorenzen.

CONCLUSION

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 3745

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DWAYNE J. WHITE whose telephone number is (571)272-4825. The examiner can normally be reached on 7:00 am to 3:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dwayne J White/
Examiner, Art Unit 3745

DJW

/Edward K. Look/
Supervisory Patent Examiner, Art Unit 3745